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ABSTRACT

The purpose of this chapter is to capture what the future holds for assessment in education and counseling. The author reviews the impact of technology, high-stakes testing, and testing accommodations. Concludes that since the use of tests and assessment in educational institutions will continue to expand, enhanced training in the use of tests and assessments for educators, and the development of standards and guidelines, need to go hand in hand with the expanded use to promote ethical and responsible test use. (Contains 13 references.) (GCP)

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Technology, Collaboration, and Better Practice: The Future of Assessment in Education and Counseling

By
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Chapter 45
Technology, Collaboration, and Better Practice
The Future of Assessment in Education and Counseling

Jo-Ida C. Hansen

The purpose of this chapter is to capture what the future holds for assessment in education and counseling. I will examine only a slice of the exciting times ahead for the field. I trust that many of the other chapter authors in this book have also identified future directions for assessment. I hope my comments are minimally redundant of theirs.

Nature is cyclical. History repeats itself. Fads come and go, then come again. (My university's bookstore is selling tie-dyed t-shirts, and it's not just people older than 40 who are buying them.) Likewise, the popularity of assessment and testing has waxed and waned over the decades. The universe of assessment may be broader now then it was 30 or 40 years ago (e.g., portfolios, performance-based testing, assessment centers, and in-basket exercises are relatively new additions to our available assessment tools) but this decade seems to be moving in the direction of an increasing willingness to employ assessment and testing.

The Impact of Technology

Technology, including technological advances we cannot even imagine, will undoubtedly play a role in the use of assessment and testing by educators and counselors. E-mail, the Internet, the web, computers that are fast and powerful, Palm Pilots, wireless interfaces, and software that accepts voice input will have a profound effect on assessment. Already computerized administration of college admissions achievement tests has essentially replaced paper-and-pencil tests.

Research examining the applicability of computer administration of tests to various populations suggests that this mode of administration is successful (King & Miles, 1995; Reile & Harris-Bowlsbey, 2000). Safeguards can be incorporated to prevent oversights or omissions;

scoring errors are reduced; and feedback can be immediate. As access to computers increases among the general population, computerized testing and Internet-based assessment will become more widespread. Individuals who live in rural areas with limited resources should benefit from this option. Counselors should not automatically assume, however, that all web-based assessments are of high quality. The equivalence of paper-and-pencil and Internet administrations should be established (Sampson, 2000).

Web-based assessment tools are cost-effective and provide results almost immediately. For example, the Child Trauma Academy and the Texas Department of Protective and Regulatory Services are working on the Well-Based Assessment Tool (WBAT), which enables more efficient treatment planning, evaluation, and service delivery for neglected and abused children (Hayes, 2001). The tool assesses various domains of functioning and provides both objective and subjective data. Trained counselors conduct the assessment, and the results are available almost immediately to members of the child's intervention team (e.g., caseworkers and judges).

Advanced programming skills and speedy computers with large memories enable the development of enormous amounts of individualized feedback for test takers. Computer-generated narrative reports were first developed for measures of personality. Instruments such as the MMPI (and MMPI-2) have provided both profile and interpretive reports as feedback for several decades. Interest inventories also have a relatively long history of providing both profiles and interpretive reports (Hansen, 1987). More recent developments include elaborate systems such as ETS's Score Report Plus, which links PSAT/NMSQT assessment with instruction (ETS, 2001). In addition to providing scores, percentiles, ranks, and correct answers, the Score Report Plus includes a section that advises students what they can do to improve their skills. The processes used to generate this information require heavy-duty computing and would not have been technologically feasible 10 years ago.

In the interest measurement arena, the KUDER Career Search Schedule with Person-Match (KCSS), which provides a unique technique for matching an individual's interests to those of a specific person, would not be possible without high-speed, large-memory computers. The KCSS is administered online, takes about 20 minutes to complete, and includes a set of activity preference items; six possible KUDER Career Clusters, representing Holland's six RIASEC types, generated from the 10 homogeneous activity scales of the KUDER;

and 2,000 satisfied employed adults representing 280 of the occupations. The computer sifts through the test taker's interest results and identifies 14 people in the sample of 2,000 who have interests most similar to the test taker's. The report includes a vocational biography for each of the 14 matches as well as suggested steps for continuing career exploration. The inventory is recommended for use with middle school, high school, and community college students to assist them in making educational and career decisions (D. G. Zytowski, personal communication, 2001). An optional package enables students to create an online portfolio that includes the KSA, Super's Work Values Inventory, grades, achievements, and work history. This information can then be used to generate a resume.

Another area in which computers have had, and will continue to have, an impact is on test construction. The emergence of item response theory (IRT) models allows management of item banks to be done automatically. IRT essentially uses responses to items administered at the beginning of a testing session to select items at an appropriate difficulty level for the remainder of the testing session. The IRT approach conserves the number of items required (up to 50 percent), which reduces administration and item development costs as well as test-taking time. Research has shown that IRT methods of test construction can result in shorter tests with better reliability and more precision than conventional achievement tests (Hambleton & Swaminathan, 1985).

The capabilities of computers are leading test developers to expand test batteries to include aspects of abilities that have been difficult to test in the past (e.g., short-term memory, visual-motor coordination, and spatial perception). Furthermore, software can be developed that gives computers the capacity to score open-ended responses. This opens the door for developing computer-based tests of creativity, ideational fluency, and inventiveness.

High-Stakes Testing

Large-scale administrations of achievement tests will be used even more in the future than they are now to make decisions about student progress (e.g., placement, promotion, and graduation). At least 10 states have already developed course exams to be given at the end of specific courses. A passing score is one requirement for passing the course, and the score also figures into decisions to graduate a student (Goetz, Duffy, & Carlson-LeFloch, 2001). In addition to end-of-course exams, about half of U.S. states now require graduation or high school exit exams

(NGA Reports Online, 2002). High-stakes assessments such as these are also being used increasingly in lower grades in efforts to comply with the 2001 No Child Left Behind Act. Assessments start in grade 3 and continue through grade 12, and eventually will be required in reading and language arts, mathematics, and science. In addition to using scores to make promotion, placement, and graduation decisions, high-stakes tests can be designed to assist with diagnosis of student academic strengths and weaknesses. Typically scores on subtests of items are used for this purpose. Performance assessments or portfolios will also be used increasingly as school systems grapple with ways of accommodating students with disabilities and students with limited English proficiency.

Testing Accommodations

According to the U.S. Department of Education, more than 13 percent of children in elementary and middle schools have individualized education plans, and on average 4 to 5 percent of students completing the SAT indicate they have a learning, physical, sensory (e.g., auditory, visual), or psychological (e.g., anxiety disorder, ADHD) disability. Less than 2.5 percent of all tests administered by ETS require accommodations, but the rate is increasing annually, and in 2000–2001 more than 3,000 students received accommodations for testing sessions with the PSAT/NMSQT, SAT I, SAT II, or Advanced Placement Exams (Camara, 2001). Providing accommodations ensures measurement of the intended construct rather than sources of error attributable to the disability, and increases the number of students who can participate in the assessment. As schools try to comply with federal law mandating that all students participate in large-scale assessments, the number and types of accommodations used will increase. Currently, the most frequent accommodations are simply to provide extra time and allow students to be in separate rooms with fewer distractions. In some instances, students are allowed to choose their preferred response format (e.g., in their native language, orally instead of in writing, using typewriters or computers). The way in which a test is administered can also be modified: Braille or large print administrations; translations into native language versions; or oral rather than written administrations are all changes that can be made to enable testing programs to include students for whom standard administration procedures may not result in valid scores.

Mental Health Assessment in the Schools

The traditional separation of children's mental health problems from problems of cognitive development is beginning to give way to a realization that collaborative school environments may best serve the needs of students. Given the number of increasingly complex problems that confront children and young adults, mental health programs located in schools may offer more immediate service and interventions than do community mental health resources. In addition to being able to address mental health problems, schools provide an excellent setting for the delivery of preventive interventions. Preventive interventions include those with a traditional educational focus (such as academic competence) as well as issues of emotional well-being, social skills development, and physical health aimed at helping students before more serious problems develop. School-community-state partnerships are useful in the early stages of implementing and evaluating these programs.

Assessment and testing will be important ingredients in these school-based mental health and prevention programs (see chapters 11 and 12 for descriptions of specific tests for specific uses in school health contexts). Some of the primary purposes of mental health assessment will be (a) to describe current levels of functioning; (b) to aid in differential diagnosis of emotional, behavioral, and cognitive disorders; (c) to monitor treatment and intervention effectiveness; and (d) to manage risk, especially risk related to legal liabilities (Meyer et al., 2001). The usefulness of student assessment will be enhanced when collaborative procedures are used to involve families and others in the student's interpersonal system.

Enhanced assessment and testing training for teachers, administrators, and school counselors will be needed to provide the necessary foundation for understanding personality, cognitive, and behavioral disorders, and psychopathology. Tests can assist counselors in their work with teachers and students, but they are only tools. Ultimately, the counselor must be able to draw inferences from the assessment and test results, and to communicate the results to parents and to educators.

Conclusion

Educational and psychological assessment and testing first began in school settings with measurement of abilities and achievement. This

purpose remains an important one that is expanding in scope in response to state and federally mandated testing programs. The technology of today and the future will make testing and assessment more available to, and more affordable for, a larger segment of the population. Technological enhancements also will allow schools greater access to a wider variety of instruments.

A greater emphasis on school-community collaboration will reduce the separation of educational and personal counseling, and along with that trend, counselors, teachers, and other educators will use a broader spectrum of instruments to assist them with diagnosis, intervention planning, and outcome assessment. Consequently, educators will need more comprehensive training to prepare them to use testing and assessments responsibly in their work.

Another consequence of the broader use of tests and assessments, as well as new technological innovations, is the need for user guidelines and standards to guide good practice and decision making. For example, the availability of tests on the Internet has many benefits; however, potential problems also accompany this new mode of service delivery. Issues of client confidentiality and privacy, instrument reliability and validity, the ethics of providing adequate interpretation for the client, the consequences of unsupervised test administration, and equitable access for people with limited financial resources will need to be addressed (Sampson & Lumsden, 2000).

The bottom line, then, is that the use of tests and assessment in educational institutions will continue to expand. Enhanced training in the use of tests and assessments for educators, and the development of standards and guidelines, need to go hand in hand with the expanded use to promote ethical and responsible test use.

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